WHAT IS CLAIMED IS:

1. A minute droplet forming method of electrostatic attraction type for forming a minute droplet by attracting a liquid by applying a pulse voltage to a nozzle tip containing said liquid, said method comprising:

a step of applying said pulse voltage between a substrate arranged to face said nozzle tip with a predetermined space therebetween and said liquid within said nozzle so as to project said liquid from said nozzle tip and form a liquid column; and

a step of isolating said droplet by enhancing a fluid resistance within said nozzle so as to cause a setback force for returning said liquid into said nozzle to act on said formed liquid column.

2. A minute droplet forming method according to claim 1, wherein a size of said droplet to be formed is adjusted by controlling said setback force.

3. A minute droplet forming method according to claim 1, wherein each of said forming and isolating of said droplet is carried out under a saturation vapor pressure of said liquid.

4. A minute droplet forming method according to claim 1, wherein said nozzle is a core nozzle having a core arranged therewithin.

5. A minute droplet forming apparatus comprising:

a nozzle for storing therewithin a liquid for forming

a droplet;

a substrate, arranged so as to face a tip of said nozzle, for mounting said droplet dropped from said nozzle tip;

a pulse power supply for applying a pulse voltage between said liquid within said nozzle and said substrate;

a fluid regulating unit adapted to change a fluid resistance within said nozzle; and

a control unit for controlling said pulse power supply and said fluid regulating unit.

6. A minute droplet forming apparatus according to claim 5, further comprising an environment maintaining unit for causing surroundings of said tip of said nozzle and said substrate to keep a saturation vapor pressure environment of said liquid within said nozzle.

7. A minute droplet forming apparatus according to claim 5, wherein said nozzle is a core nozzle having a core arranged within said nozzle.